

**REMARKS**

Claims 1-38 were pending in this application.

Claims 1, 10, 15, 24, 29, and 34-38 have been rejected.

Claims 2-9, 11-14, 16-23, 25-28, and 30-33 have been objected to.

No claims have been amended.

Claims 1-38 remain pending in this application.

Reconsideration and full allowance of Claims 1-38 are respectfully requested.

**I. ALLOWABLE CLAIMS**

The Applicant thanks the Examiner for the indication that Claims 2-9, 11-14, 16-23, 25-28, and 30-33 would be allowable if rewritten in independent form to incorporate the elements of their respective base claims and any intervening claims. Because the Applicant believes that the remaining claims in this application are allowable, the Applicant has not rewritten Claims 2-9, 11-14, 16-23, 25-28, and 30-33 in independent form.

**II. REJECTION UNDER 35 U.S.C. § 103**

The Office Action rejects Claims 1, 10, 15, 24, 29, and 34-38 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,339,050 to Llewellyn (“*Llewellyn*”) in view of U.S. Patent No. 5,420,545 to Davis et al. (“*Davis*”), U.S. Patent No. 5,939,949 to Olgaard et al. (“*Olgaard*”), and U.S. Patent No. 5,142,247 to Lada, Jr. et al. (“*Lada*”). This rejection is respectfully traversed.

In *ex parte* examination of patent applications, the Patent Office bears the burden of establishing a *prima facie* case of obviousness. (*MPEP* § 2142; *In re Fritch*, 972 F.2d 1260, 1262, 23 U.S.P.Q.2d 1780, 1783 (*Fed. Cir.* 1992)). The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention is always upon the Patent Office. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (*Fed. Cir.* 1992); *In re Piasecki*, 745 F.2d 1468, 1472, 223 U.S.P.Q. 785, 788 (*Fed. Cir.* 1984)). Only when a *prima facie* case of obviousness is established does the burden shift to the applicant to produce evidence of nonobviousness. (*MPEP* § 2142; *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (*Fed. Cir.* 1992); *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (*Fed. Cir.* 1993)). If the Patent Office does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of a patent. (*In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (*Fed. Cir.* 1992); *In re Grabiak*, 769 F.2d 729, 733, 226 U.S.P.Q. 870, 873 (*Fed. Cir.* 1985)).

A *prima facie* case of obviousness is established when the teachings of the prior art itself suggest the claimed subject matter to a person of ordinary skill in the art. (*In re Bell*, 991 F.2d 781, 783, 26 U.S.P.Q.2d 1529, 1531 (*Fed. Cir.* 1993)). To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to

make the claimed invention and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. (*MPEP § 2142*).

Claims 1, 15, 29, 37, and 38 recite that a “charge pump current” is adjusted based on at least one of: “one of a first plurality of ranges” in which a “first divider value lies” and “one of a second plurality of ranges” in which a “second divider value lies.”

*Llewellyn* recites a phase locked loop (PLL) frequency synthesizer that includes a feedback divider (element 206), which has a “division factor M.” (*Col. 5, Lines 15-19*). *Llewellyn* recites that the division factor M could have an “operational range” of “256:1 or greater.” (*Col. 2, Lines 50-52*).

First, the Applicant once again notes that the system of *Llewellyn* operates using the specific value of M. In other words, *Llewellyn* adjusts a current based on the actual value of M. There is no recitation in *Llewellyn* that the current is adjusted based on the “range” in which the value of M lies. For example, *Llewellyn* never recites that a current is adjusted based on whether the value of M lies between 1 and 4, 5 and 8, or 9 and 16. In contrast, Claims 1, 15, 29, 37, and 38 all recite adjusting a charge pump current based on which of a “plurality of ranges” a “divider value lies.” Because of this, Claims 1, 15, 29, 37, and 38 cannot be anticipated by a reference that uses the specific value for a “division factor M,” rather than using one of multiple “ranges” in which the “division factor M” lies.

Second, *Llewellyn* recites that the value of M may “have an operational range of 256:1 or greater.” (*Col. 2, Lines 50-52*). This portion of *Llewellyn* simply identifies a single range for the value of M. The Office Action fails to identify any portion of *Llewellyn* reciting that there are

multiple “ranges” for the value of M. Because of this, the Office Action fails to establish that *Llewellyn* anticipates adjusting a current based on which of a “plurality of ranges” a divider value lies as recited in Claims 1, 15, 29, 37, and 38.

Third, the Office Action notes that the value of M in *Llewellyn* may change over time. (*Office Action, Page 3, Last paragraph – Page 4, First paragraph*). However, whether or not the value of M changes over time is irrelevant. In order to anticipate Claims 1, 15, 29, 37, and 38, the Office Action must show that the value of M in *Llewellyn* may lie in one of multiple “ranges” and that *Llewellyn* adjusts a current based on the range in which the value of M lies. The Office Action simply asserts that as the PLL “goes from coarse to fine tune, the corresponding range for M would change.” (*Office Action, Page 3, Last paragraph – Page 4, First paragraph*). However, the Office Action cites no portion of *Llewellyn* to support these assertions. In fact, as described above, *Llewellyn* clearly recites a single range for the value of M and contains absolutely no mention of a different range of values.

To establish inherency, the burden is on the Patent Office to present evidence clearly showing that “the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” (*MPEP § 2112*). However, the fact that a “certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic.” (*MPEP § 2112*). The Patent Office must “provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows” from the teachings of cited reference. (*MPEP § 2112*).

The burden is on the Patent Office to prove that *Llewellyn* must use multiple “ranges” for the value of M. The Office Action simply asserts that the value of M may change as the PLL is tuned. The Office Action fails to provide any explanation or evidence showing that *Llewellyn* must operate by providing different ranges for the value of M. As a result, the Office Action fails to establish that the use of multiple ranges is inherent in *Llewellyn*.

For these reasons, the Office Action fails to show that *Llewellyn* anticipates various elements in Claims 1, 15, 29, 37, and 38. None of the other references is cited as disclosing, teaching, or suggesting these elements of Claims 1, 15, 29, 37, and 38. As a result, the Office Action fails to establish a *prima facie* case of obviousness against Claims 1, 15, 29, 37, and 38 (and their dependent claims).

Accordingly, the Applicant respectfully requests withdrawal of the § 103 rejection and full allowance of Claims 1, 10, 15, 24, 29, and 34-38.

### III. CONCLUSION

As a result of the foregoing, the Applicant asserts that the remaining claims in the application are in condition for allowance and respectfully requests an early allowance of such claims.

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**SUMMARY**

If any issues arise, or if the Examiner has any suggestions for expediting allowance of this application, the Applicant respectfully invites the Examiner to contact the undersigned at the telephone number indicated below or at [wmunck@davismunck.com](mailto:wmunck@davismunck.com).

The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Davis Munck, P.C. Deposit Account No. 50-0208.

Respectfully submitted,

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